50 CFR Part 17

Endangered and Threatened Wildlife and Plants; Determination of Threatened Status for the Ringed Sawback Turtle (Graptemys Oculifera)

AGENCY: Fish and Wildlife Service, Interior.

ACTION: Final rule.

SUMMARY: The Service determines the ringed sawback turtle (*Graptemys oculifera*) to be a threatened species. This basking turtle is found only in the Pearl River system of Mississippi and Louisiana. It seems to prefer wide sand beaches and a narrow channel with at least moderate current, and characteristically spends many hours basking in open sunshine on logs and debris over deep water. Some of its former habitat has been modified by reservoir construction and flood control, while other areas are marginal habitat due to water quality degradation and corresponding loss of its molluscan food supply. Most of the remaining habitat is threatened by flood control projects. This determination implements the needed protection of the Endangered Species Act of 1973, as amended.

EFFECTIVE DATE: The effective date of this rule is January 22, 1987.

ADDRESSES: The complete file for this rule is available for inspection, by appointment, during normal business hours at the Endangered Species Field Office, U.S. Fish and Wildlife Service, Jackson Mall Office Center, Suite 316, 300 Woodrow Wilson Avenue, Jackson, Mississippi 39213.

FOR FURTHER INFORMATION CONTACT: Mr. Dennis B. Jordan at the above address (601/965–4900 or FTS 490–4900).

SUPPLEMENTARY INFORMATION:

Background

The ringed sawback turtle was described by Baur in 1890 as *Malacoclemmys oculifera* and renamed *Graptemys oculifera* in 1893. The type specimens were a group of turtles acquired for the United States National Museum by Gustave Kohn and reportedly came from Mandeville, Louisiana, and Pensacola, Florida (Cagle 1953). On the basis of a 1900 statement to this effect by George E. Beyer, then Curator of the Tulane Museum, Cagle said they were probably purchased in the French Quarter Market in New Orleans, Louisiana. Due to the absence of ringed sawback turtles from collections in southern Alabama and Florida, Cagle considers the Pensacola record to be erroneous, although Kohn had accepted the locality data of the individual from whom the purchase was made. The Mandeville record is probably from the Pearl River, 26 miles to the east, since there is no suitable habitat near Mandeville.

The ringed sawback turtle is a small turtle having a yellow ring bordered inside and outside with dark olive-brown on each shield of the upper shell or carapace and a yellow undershell or plastron. The head has a large yellow spot behind the eye, two yellow stripes from the orbit backwards and a characteristic yellow stripe covering the whole lower jaw (Cagle 1953). Males grow to 4 inches (10 centimeters) and females to 7 inches (18 cm) in plastron length.

The ringed sawback turtle's habitat is typically riverine with a moderate current and numerous basking logs. The river must be wide enough to allow sun penetration for several hours. Nesting habitat consists of large, high sand and gravel bars adjacent to the river. Good water quality is necessary for the production of snails and other mollusks on which the ringed sawback turtle feeds. This basking turtle is not able to inhabit large lake areas or polluted waters.

Information from herpetologists and museum curators reflecting several decades of sustained collecting effort, as well as its own field studies, provided the Service with strong evidence that this species is restricted to the main channels of the Pearl and Bogue Chitto Rivers of Mississippi and Louisiana. No survey respondent had recorded the ringed sawback turtle from outside this river system. Cagle (1953) examined 51 specimens taken from unspecified sites on the Pearl River and considered the ringed sawback turtle to be restricted to the Pearl and Bogue Chitto Rivers, noting that it was absent from streams to the east. It occurs in most reaches of the Pearl River upstream to Neshoba County, Mississippi (Cliburn 1971), and in the Bogue Chitto River upstream to Franklinton, Louisiana (James Dobie, Auburn University, personal communication). The Amite and Tangipahoa Rivers to the west appear to have suitable habitat but, when searched, have not produced any

specimens of the ringed sawback turtle. Cliburn (1971) collected 37 representatives of this species in his study of *Graptemys* in Mississippi, and found the species in the Pearl River up to Neshoba County. He concluded that, in Mississippi, it was restricted to the mainstem Pearl River.

McCoy and Vogt (1980) established 14 observation stations in the Pearl River system and one in the Wolf River, a small coastal stream to the east. They found no turtles of this species in the Wolf River. In the Pearl River they observed ringed sawback turtles at 8 stations, with 20 or more individuals observed at two of these stations. These two stations, representing population centers, are more than 100 river miles (rmi) or 161 river kilometers (rkm) apart. McCoy and Vogt (1980) established three trap sites at which they caught only 3 ringed sawback turtles in 15 trap days. At these same stations, Cliburn (1971) had captured 21 individuals. McCoy and Vogt (1980) reported one sight record and one other casual observation of this species in smaller tributary streams of the Pearl River, but the Service considers these reports to be very doubtful in light of its own survey results.

Service biologists in 1984 and 1985 surveyed various river reaches in the Pearl River from Edinburg, Mississippi, downstream. In one river reach upstream they identified 75 percent of the *Graptemys* as *G. oculifera*, which compares favorably with Cliburn's collections. Comparing Cliburn's data with the Service survey suggests that the ringed sawback turtle population has remained stable in the Pearl River above Ross Barnett Reservoir and in a reach of the Pearl River near Monticello and Columbia. The Service survey below Ross Barnett Reservoir observed only 41 *Graptemys* in a 7-mile (11.3-km) reach, with most of these turtles large enough to be adults. Cagle's (1953, 1954) studies indicated a population comprised of 80 percent juveniles. Based on this comparison, the population near Jackson appears to be declining. Service survey of the Pearl River at Columbia found a river reach almost devoid of any turtle species. While the ringed sawback turtle is still abundant at some locales, it is almost extirpated from some other river reaches, with little evidence of a healthy population in those areas.

Virtually all the land adjacent to the Pearl and Bogue Chitto Rivers is privately owned. The National Park Service administers public land on a short river reach of the Pearl above Ross Barnett Reservoir. The Service administers Bogue Chitto National Wildlife Refuge, consisting of several thousand acres at the confluence of the Pearl and Bogue Chitto Rivers. Pearl River Valley Management District controls Ross Barnett Reservoir, the only impoundment on the Pearl River.

The Service published a notice of review of the status of twelve species of turtles, including the ringed sawback turtle, in the **Federal Register** on June 6, 1977 (42 FR 28903). Seventy percent of those responding to the notice recommended listing the ringed sawback turtle as threatened. One agency commented that the available information did not indicate the ringed sawback warranted protection. Another agency stated that it considered the most significant threat to basking turtles to be wanton shooting, but did not address the ringed sawback specifically.

Summary of Comments and Recommendations

In the January 21, 1986, proposed rule (51 FR 2741) and associated notifications, all interested parties were requested to submit factual reports or information that might contribute to the development of a final rule. Appropriate State agencies, county governments, Federal agencies, scientific organizations, and other interested parties were contacted and requested to comment. Newspaper notices were published on February 7, 1986, in the *Clarion Ledger* and the *Jackson Daily News;* on February 8, 1986, in the *Hattiesburg American;* on February 9, 1986, in the *Bogalusa Daily News;* and on February 10, 1986, in the *Times Picayune,* and all notices invited general public comment. A public hearing was not requested. The Mississippi Department of Wildlife Conservation, one professional biologist, one professional organization, and one interested individual provided comments in support of the proposal. One professional biologist provided information on a closely related species without taking a position on the proposal. No other comments were received.

Summary of Factors Affecting the Species

After a thorough review and consideration of all information available, the Service has determined that the ringed sawback turtle (*Graptemys oculifera*) should be classified as a threatened species.

Procedures found at section 4(a)(1) of the Endangered Species Act (16 U.S.C. 1531 *et seq.*) and regulations (50 CFR Part 424) promulgated to implement the listing provisions of the Act were followed. A species may be determined to be an endangered or threatened species due to one or more of the five factors described in Section 4(a)(1). These factors and their application to the ringed sawback turtle (*Graptemys oculifera*) are as follows:

A. *The present or threatened destruction, modification, or curtailment of its habitat or range.* The survival of the ringed sawback turtle is presently threatened by habitat modification for flood control and navigation. The ringed sawback turtle must have structures on which it can bask and be safe from predation, and it must have suitable nesting habitat. These structures are generally logs, snags, and other debris commonly occurring in streams. Navigation and flood control measures often require the removal of logs, snags, and river bars to facilitate water flows. Flood control projects also contribute to sedimentation in downstream river reaches. This is especially true where flood control measures consist of floodplain clearing and channelization of tributary streams to facilitate water flow. Increased turbidity and siltation impact the snails and other mollusks on which the ringed sawback turtle feeds.

The ringed sawback turtle has been impacted by habitat modification in 21 percent of the historic range in the Pearl River by construction of Ross Barnett Reservoir, 30 rmi (48 rkm), West Pearl channel to Bogalusa, 58 rmi (93 rkm), and the floodplain clearing at Jackson, Mississippi, 8 rmi (13 rkm) (U.S. Army Corps of Engineers 1983). Projects planned or authorized by the Corps of Engineers (Corps) will impact up to 28 percent of the remaining Pearl River habitat. These planned or authorized projects are: (1) a navigation channel in the East Pearl up to Picayune (about 30 rmi or 48 rkm); (2) a channel 5 feet (ft) (1.5 meters (m)) deep from Jackson to Carthage 100 rmi (161 rkm); (3) a channel 2 ft (0.6 m) deep from Carthage to Edinburg, 28 rmi (45 rkm); (4) Shoccoe Dam (up to 70 rmi or 113 rkm); and (5) a channel 3200 ft (1000 m) long through the Old Jackson Sanitary Landfill. In addition, the Corps has flood control studies on-going or planned for Pearl River reaches at Slidell, Louisiana, and Pearlington, Morgantown, Monticello, Foxworth, Columbia, Carthage, and Leake County, Mississippi. A channel is authorized for 100 rmi (161 rkm) of the Bogue Chitto River and flood control studies are planned for Bogue Chitto River reaches at Franklinton, Louisiana, and Tylertown, Mississippi. This authorized project would eliminate the Bogue Chitto River as suitable habitat for the ringed sawback turtle. The Corps has flood control studies on-going or

planned for Canal A at Pearl-Flowood, Caney Creek, Three-Mile Creek, Dry Creek, Webb Creek, and Sellers Creek in the Pearl River basin.

The U.S. Soil Conservation Service (1983) has constructed 25 watershed structures and 49.5 mi (80 km) of drainage ditches in the Pearl River basin, and is continuing this type of construction. These projects impact the ringed sawback turtle by increased sedimentation from drainage ditches. Also, where these ditches drain agricultural fields, the runoff of pesticides contributes to water quality degradation.

Legislation has been introduced to allow local funding of flood control measures, including the Edinburg and Shoccoe dams. The City of Jackson has accomplished some flood plain clearing and is studying the feasibility of a parkway levee that would contain flood waters below Ross Barnett Reservoir. County supervisors throughout the Pearl River basin have proposed numerous flood control measures.

Impoundments obviously eliminate the ringed sawback turtle's required habitat by inundation. Flood control and navigation channel modifications in ringed sawback turtle habitat may eliminate basking sites and nesting sites, change water flows, harm the food source, and increase turbidity and siltation to the detriment of the ringed sawback turtle. Channel modification in tributary streams can increase turbidity and siltation in the Pearl River and impact snails and mollusks. Authorized and planned projects, sand and gravel dredging, and the result of navigation and flood control studies could modify most, if not all, of the known ringed sawback turtle habitat.

B. *Overutilization for commercial, recreational, scientific, or educational purposes.* Wanton shooting (use of the basking turtles for target practice) and collecting pose a threat to the ringed sawback turtle. This threat becomes more serious as the population declines owing to impacts of habitat alteration. The threat from collecting for scientific and educational purposes is declining. In previous years, relatively large numbers of ringed sawback turtles were collected for museums. A changing awareness on the part of many scientists seems to be reducing this threat. Collecting for commercial purposes is a more serious threat. This very attractive turtle is advertised for retail sale at $28 each. The turtle is quite vulnerable to knowledgeable collectors, who can seriously decimate a local population in a short period of collecting.

C. *Disease and predation.* There is no known threat from disease. While this species is subject to some natural predation, the only serious direct threat is wanton shooting as discussed in Factor "B" above. The alteration of habitat as discussed in Factor "A" could make the ringed sawback turtle more susceptible to natural predators.

D. *The inadequacy of existing regulatory mechanisms.* The ringed sawback turtle is listed as endangered under Mississippi Department of Wildlife Conservation Public Notice 2408. Because of this State protection, the Federal Lacey Act applies to the taking and transportation of the ringed sawback turtle from Mississippi. Louisiana does not recognize the ringed sawback turtle as a protected species, thereby increasing the difficulty of enforcing the Lacey Act because the capture locale must be proven. Both states require permits to collect the ringed sawback turtle for scientific purposes, but compliance is extremely difficult to enforce. The loss or alteration of habitat is the greatest threat to the ringed sawback turtle, but previous regulations did not require consideration of this species during project planning. Listing under the Endangered Species Act provides additional protection through sections 7 and 9 of the Act and through the recovery process.

E. *Other natural or manmade factors affecting its continued existence.* Water quality degradation also poses a serious threat to the ringed sawback turtle. This impact includes bioaccumulation of toxic materials and the loss of food organisms. The total effects of pollution and siltation upon the ringed sawback turtles themselves have not been documented. However, the effects on snails and other mollusks are well documented, and this group of organisms is the primary food source of the ringed sawback turtle. Thus, water quality degradation can reduce or eliminate the turtle's food supply. The reduced population of ringed sawback turtles in river reaches that have otherwise suitable habitat, but are polluted from some source, tends to support this conclusion.

The Service has carefully assessed the best scientific and commercial information available regarding the past, present, and future threats faced by this species in determining to make this rule final. Based on this evaluation, the preferred action is to list the ringed sawback turtle as threatened. A threatened species is any species which is likely to become an endangered species within the foreseeable future throughout all or a significant portion of its range. Threatened status was chosen because, even though the Pearl River population of ringed sawback turtles appears presently stable, the potential modification of the Pearl River for flood control appears to pose serious threats to the species' survival. Endangered status is not appropriate because the species is not faced with imminent extinction, unless the Pearl River is modified greatly. Critical habitat is not being proposed for the reasons discussed below.

Critical Habitat

Section 4(a)(3) of the Act, as amended requires that to the maximum extent prudent and determinable, the Secretary designate critical habitat at the time a species is determined to be endangered or threatened. The Service finds that designation of critical habitat is not prudent for this species at this time. There are two good population centers in the Pearl River and to designate the as critical habitat would make this species more susceptible to collectors discussed under Factor "B" in the "Summary of Factors Affecting the Species." Publication of critical habitat descriptions would make this species even more vulnerable and increase law enforcement problems. All involved parties will be notified of the location and importance of protecting this species' habitat. Protection of this species' habitat will be addressed through the recovery process and through the section 7 jeopardy standard. Therefore, it would not be prudent to determine critical habitat for the ringed sawback turtle at this time.

Available Conservation Measures

Conservation measures provided to species listed as endangered or threatened under the Endangered Species Act include recognition, recovery actions, requirements for Federal protection, and prohibitions against certain practices. Recognition through listing encourages and results in conservation actions by Federal, State and private agencies, groups, and individuals. The Endangered Species Act provides for possible land acquisition and cooperation with the States and requires that recovery actions be carried out for all listed species. Such actions are initiated by the Service following listing. The protection required of Federal agencies and the prohibitions against taking and harm are discussed, in part, below.

Section 7(a) of the Act, as amended, requires Federal agencies to evaluate their actions with respect to any spec

that is listed as endangered or threatened and with respect to its critical habitat if any is being designated. Regulations implementing this interagency cooperation provision of the Act are codified at 50 CFR Part 402 (see revision at 51 FR 19926; June 3, 1986). Section 7(a)(2) requires Federal agencies to ensure that activities they authorize, fund, or carry out are not likely to jeopardize the continued existence of a listed species or to destroy or adversely modify its critical habitat. If a Federal action may affect a listed species or its critical habitat, the responsible Federal agency must enter into formal consultation with the Service.

Expected Federal involvement with the ringed sawback turtle includes U.S. Army Corps of Engineer projects for flood control and navigation, activities permitted by the Corps, and Soil Conservation Service (SCS) watershed projects. The lower Pearl River requires maintenance dredging for navigation. Corps projects and plans for flood control include significant Pearl River reaches from Edinburg to the Mississippi coast and most of the Bogue Chitto River in Louisiana and Mississippi. The SCS has at least 10 watershed projects planned or in operation within the Pearl River basin.

The Act and implementing regulations found at 50 CFR 17.21 and 17.31 set forth a series of general prohibitions and exceptions that apply to all threatened wildlife. These prohibitions, in part, make it illegal for any person subject to the jurisdiction of the United States to take, import or export, ship in interstate commerce in the course of commercial activity, or sell or offer for sale in interstate or foreign commerce any listed species. It also is illegal to possess, sell, deliver, carry, transport, or ship any such wildlife that has been taken illegally. Certain exceptions apply to agents of the Service and State conservation agencies.

Permits may be issued to carry out otherwise prohibited activities involving threatened wildlife species under certain circumstances. Regulations governing permits are at 50 CFR 17.22, 17.23, and 17.32. Such permits are available for scientific purposes, to enhance the propagation or survival of the species, and/or for incidental take in connection with otherwise lawful activities. For threatened species, there are also permits for zoological exhibition, educational purposes, or special purposes consistent with the purposes of the Act. In some instances, permits may be issued during a specified period of time to relieve undue economic hardship that would be suffered if such relief were not available.

National Environmental Policy Act

The Fish and Wildlife Service has determined that an Environmental Assessment, as defined under the authority of the National Environmental Policy Act of 1969, need not be prepared in connection with regulations adopted pursuant to section 4(a) of the Endangered Species Act of 1973, as amended. A notice outlining the Service's reasons for this determination was published in the **Federal Register** on October 25, 1983 (48 FR 49244).

References Cited

Cagle, F.R. 1953. The Status of the turtle *Graptemys oculifera* (Baur). Zoologica 83:137–144.

Cagle, F.R. 1954. Two new species of the genus *Graptemys*. Tulane Studies in Zoology 1:166–186.

Cliburn, J.W. 1971. The ranges of four species of *Graptemys* in Mississippi. J. Mississippi Acad. Sci. 16:16–19.

McCoy, C.J., and R.C. Vogt. 1980. Distribution and population status of the ringed sawback *Graptemys oculifera* (Baur) in Mississippi and Louisiana. A status survey report for the U.S. Fish and Wildlife Service.

U.S. Army Corps of Engineers. 1983. Project Maps. Vicksburg District.

U.S. Soil Conservation Service. 1983. Watershed Progress Report. U.S. Department of Agriculture, Jackson, Mississippi.

Author

The primary author of this final rule is James Stewart (see **ADDRESSES** section).

List of Subjects in 50 CFR Part 17

Endangered and threatened wildlife, Fish, Marine mammals, Plants (agriculture).

Regulation Promulgation

PART 17—[AMENDED]

Accordingly, Part 17, Subchapter B of Chapter I, Title 50 of the Code of Federal Regulations, is amended as set forth below:

1. The authority citation for Part 17 continues to read as follows:

Authority: Pub. L. 93–205, 87 Stat. 884; Pub. L. 94–359, 90 Stat. 911; Pub. L. 95–632, 92 Stat. 3751; Pub. L. 96–159, 93 Stat. 1225; Pub. L. 97–304, 96 Stat. 1411 (16 U.S.C. 1531 *et seq.*).

2. Amend § 17.11(h) by adding the following, in alphabetical order under Reptiles, to the List of Endangered and Threatened Wildlife:

§ 17.11 Endangered and threatened wildlife.

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(h) * * *

Species		Historic range	Vertebrate population where endangered or threatened	Status	When listed	Critical habitat	Special rules
Common name	Scientific name						
REPTILES							
*	*	*	*	*	*		
Turtle, ringed sawback	*Graptemys oculifera*	U.S.A. (LA, MS)	Entire	T	249	NA	NA
*	*	*	*	*	*		

Dated: November 28, 1986.

P. Daniel Smith,

Acting Assistant Secretary for Fish and Wildlife and Parks.

[FR Doc. 86–28732 Filed 12–22–86; 8:45 am]

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